

Table S9. Genomes in the human gut microbe database.

Genome name	Source	NCBI Taxonomy
<i>Actinomyces odontolyticus</i>	WashU	cellular organisms; Bacteria; Actinobacteria; Actinobacteria (class); Actinobacteridae; Actinomycetales; Actinomycineae; Actinomycetaceae; Actinomyces
<i>Alistipes putredinis</i>	WashU	cellular organisms; Bacteria; Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales; Rikenellaceae; Alistipes
<i>Anaerococcus hydrogenalis</i>	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Clostridiales incertae sedis; Clostridiales Family XI. Incertae Sedis; Anaerococcus
<i>Anaerofustis stercorihominis</i>	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Eubacteriaceae; Anaerofustis
<i>Anaerostipes caccae</i>	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Lachnospiraceae; Anaerostipes
<i>Anaerotruncus colihominis</i>	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Ruminococcaceae; Anaerotruncus
<i>Bacteroides caccae</i>	WashU	cellular organisms; Bacteria; Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales; Bacteroidaceae; Bacteroides
<i>Bacteroides capillosus</i>	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Clostridiaceae; Clostridium
<i>Bacteroides cellulosilyticus</i>	WashU	cellular organisms; Bacteria; Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales; Bacteroidaceae; Bacteroides
<i>Bacteroides coprocola</i>	WashU	cellular organisms; Bacteria; Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales; Bacteroidaceae; Bacteroides
<i>Bacteroides coprophilus</i>	WashU	cellular organisms; Bacteria; Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales; Bacteroidaceae; Bacteroides
<i>Bacteroides dorei</i>	WashU	cellular organisms; Bacteria; Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales; Bacteroidaceae; Bacteroides
<i>Bacteroides eggertii</i>	WashU	cellular organisms; Bacteria; Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales; Bacteroidaceae; Bacteroides
<i>Bacteroides finegoldii</i>	WashU	cellular organisms; Bacteria; Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales; Bacteroidaceae; Bacteroides
<i>Bacteroides fragilis</i> 3 1 12	NCBI	cellular organisms; Bacteria; Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales; Bacteroidaceae; Bacteroides
<i>Bacteroides fragilis</i> NCTC 9343	NCBI	cellular organisms; Bacteria; Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales; Bacteroidaceae; Bacteroides
<i>Bacteroides fragilis</i> YCH46	NCBI	cellular organisms; Bacteria; Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales; Bacteroidaceae; Bacteroides
<i>Bacteroides intestinalis</i>	WashU	cellular organisms; Bacteria; Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales; Bacteroidaceae; Bacteroides
<i>Bacteroides ovatus</i>	WashU	cellular organisms; Bacteria; Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales; Bacteroidaceae; Bacteroides
<i>Bacteroides plebeius</i>	WashU	cellular organisms; Bacteria; Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales; Bacteroidaceae; Bacteroides
<i>Bacteroides</i> sp_1_1_6	Broad	cellular organisms; Bacteria; Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales; Bacteroidaceae; Bacteroides
<i>Bacteroides</i> sp_D1	NCBI	cellular organisms; Bacteria; Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales; Bacteroidaceae; Bacteroides
<i>Bacteroides</i> sp_D2	NCBI	cellular organisms; Bacteria; Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales; Bacteroidaceae; Bacteroides
<i>Bacteroides stercoris</i>	WashU	cellular organisms; Bacteria; Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales; Bacteroidaceae; Bacteroides
<i>Bacteroides thetaiotaomicron</i> 3731	WashU	cellular organisms; Bacteria; Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales; Bacteroidaceae; Bacteroides
<i>Bacteroides thetaiotaomicron</i> 7330	WashU	cellular organisms; Bacteria; Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales; Bacteroidaceae; Bacteroides
<i>Bacteroides thetaiotaomicron</i> VPI-5482	NCBI	cellular organisms; Bacteria; Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales; Bacteroidaceae; Bacteroides
<i>Bacteroides uniformis</i>	WashU	cellular organisms; Bacteria; Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales; Bacteroidaceae; Bacteroides
<i>Bacteroides vulgatus</i> ATCC 8482	NCBI	cellular organisms; Bacteria; Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales; Bacteroidaceae; Bacteroides
<i>Bacteroides</i> WH2	WashU	cellular organisms; Bacteria; Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales; Bacteroidaceae; Bacteroides
<i>Bacteroides xylinosolvens</i> XB1A	Sanger	cellular organisms; Bacteria; Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales; Bacteroidaceae; Bacteroides
<i>Bifidobacterium adolescentis</i>	WashU	cellular organisms; Bacteria; Actinobacteria; Actinobacteria (class); Actinobacteridae; Bifidobacteriales; Bifidobacteriaceae; Bifidobacterium
<i>Bifidobacterium adolescentis</i> ATCC 15703	NCBI	cellular organisms; Bacteria; Actinobacteria; Actinobacteria (class); Actinobacteridae; Bifidobacteriales; Bifidobacteriaceae; Bifidobacterium
<i>Bifidobacterium angulatum</i>	WashU	cellular organisms; Bacteria; Actinobacteria; Actinobacteria (class); Actinobacteridae; Bifidobacteriales; Bifidobacteriaceae; Bifidobacterium
<i>Bifidobacterium animalis</i> HN019	NCBI	cellular organisms; Bacteria; Actinobacteria; Actinobacteria (class); Actinobacteridae; Bifidobacteriales; Bifidobacteriaceae; Bifidobacterium
<i>Bifidobacterium animalis</i> subsp. <i>lactis</i> AD011	NCBI	cellular organisms; Bacteria; Actinobacteria; Actinobacteria (class); Actinobacteridae; Bifidobacteriales; Bifidobacteriaceae; Bifidobacterium
<i>Bifidobacterium breve</i>	WashU	cellular organisms; Bacteria; Actinobacteria; Actinobacteria (class); Actinobacteridae; Bifidobacteriales; Bifidobacteriaceae; Bifidobacterium
<i>Bifidobacterium catenulatum</i>	WashU	cellular organisms; Bacteria; Actinobacteria; Actinobacteria (class); Actinobacteridae; Bifidobacteriales; Bifidobacteriaceae; Bifidobacterium
<i>Bifidobacterium dentium</i>	WashU	cellular organisms; Bacteria; Actinobacteria; Actinobacteria (class); Actinobacteridae; Bifidobacteriales; Bifidobacteriaceae; Bifidobacterium
<i>Bifidobacterium gallicum</i>	WashU	cellular organisms; Bacteria; Actinobacteria; Actinobacteria (class); Actinobacteridae; Bifidobacteriales; Bifidobacteriaceae; Bifidobacterium
<i>Bifidobacterium longum</i> DJO10A	NCBI	cellular organisms; Bacteria; Actinobacteria; Actinobacteria (class); Actinobacteridae; Bifidobacteriales; Bifidobacteriaceae; Bifidobacterium
<i>Bifidobacterium longum</i> NCC2705	NCBI	cellular organisms; Bacteria; Actinobacteria; Actinobacteria (class); Actinobacteridae; Bifidobacteriales; Bifidobacteriaceae; Bifidobacterium
<i>Bifidobacterium pseudocatenulatum</i>	WashU	cellular organisms; Bacteria; Actinobacteria; Actinobacteria (class); Actinobacteridae; Bifidobacteriales; Bifidobacteriaceae; Bifidobacterium
<i>Blautia hansenii</i>	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; unclassified Clostridiales; Blautia
<i>Bryantella formaticigens</i>	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Lachnospiraceae; Bryantella
<i>Butyrivibrio crossotus</i>	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Lachnospiraceae; Butyrivibrio
<i>Catenibacterium mitsuokai</i>	WashU	cellular organisms; Bacteria; Firmicutes; Erysipelotrichi; Erysipelotrichales; Erysipelotrichaceae; Catenibacterium
<i>Citrobacter</i> sp	WashU	cellular organisms; Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales; Enterobacteriaceae; Citrobacter
<i>Clostridium asparagiforme</i>	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Clostridiaceae; Clostridium
<i>Clostridium bartletti</i>	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Clostridiaceae; Clostridium
<i>Clostridium bolteae</i>	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Clostridiaceae; Clostridium
<i>Clostridium hiranonis</i>	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Clostridiaceae; Clostridium
<i>Clostridium hylemoniae</i>	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Clostridiaceae; Clostridium
<i>Clostridium leptum</i>	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Clostridiaceae; Clostridium
<i>Clostridium methylpentosum</i>	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Clostridiaceae; Clostridium
<i>Clostridium nexile</i>	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Clostridiaceae; Clostridium
<i>Clostridium ramosum</i>	WashU	cellular organisms; Bacteria; Firmicutes; Erysipelotrichi; Erysipelotrichales; Erysipelotrichaceae; unclassified Erysipelotrichaceae
<i>Clostridium scindens</i>	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Clostridiaceae; Clostridium

Clostridium sp L2	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Clostridiaceae; Clostridium
Clostridium sp M62 1	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Clostridiaceae; Clostridium
Clostridium sp SS2	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Clostridiaceae; Clostridium
Clostridium spiroforme	WashU	cellular organisms; Bacteria; Firmicutes; Erysipelotrichi; Erysipelotrichales; Erysipelotrichaceae; unclassified Erysipelotrichaceae
Clostridium sporogenes	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Clostridiaceae; Clostridium
Clostridium symbiosum	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Clostridiaceae; Clostridium
Collinsella aerofaciens	WashU	cellular organisms; Bacteria; Actinobacteria; Actinobacteria (class); Coriobacteridae; Coriobacteriales; Coriobacterineae; Coriobacteriaceae; Collinsella
Collinsella intestinalis	WashU	cellular organisms; Bacteria; Actinobacteria; Actinobacteria (class); Coriobacteridae; Coriobacteriales; Coriobacterineae; Coriobacteriaceae; Collinsella
Collinsella stercoris	WashU	cellular organisms; Bacteria; Actinobacteria; Actinobacteria (class); Coriobacteridae; Coriobacteriales; Coriobacterineae; Coriobacteriaceae; Collinsella
Coprococcus comes	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Lachnospiraceae; Coprococcus
Coprococcus eutactus	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Lachnospiraceae; Coprococcus
Desulfovibrio piger ATCC29098	WashU	cellular organisms; Bacteria; Proteobacteria; delta/epsilon subdivisions; Deltaproteobacteria; Desulfovibrionales; Desulfovibrionaceae; Desulfovibrio
Desulfovibrio piger GOR1	WashU	cellular organisms; Bacteria; Proteobacteria; delta/epsilon subdivisions; Deltaproteobacteria; Desulfovibrionales; Desulfovibrionaceae; Desulfovibrio
Dorea formicigenerans	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Lachnospiraceae; Dorea
Dorea longicatena	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Lachnospiraceae; Dorea
Enterobacter cancerogenus	WashU	cellular organisms; Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriidae; Enterobacteriaceae; Enterobacter
Escherichia coli str K-12 substr. MG1655	NCBI	cellular organisms; Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriidae; Enterobacteriaceae; Escherichia
Escherichia fergusonii ATCC 35469	NCBI	cellular organisms; Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales; Enterobacteriaceae; Escherichia
Eubacterium bifforme	WashU	cellular organisms; Bacteria; Firmicutes; Erysipelotrichi; Erysipelotrichales; Erysipelotrichaceae; unclassified Erysipelotrichaceae
Eubacterium dolichurm	WashU	cellular organisms; Bacteria; Firmicutes; Erysipelotrichi; Erysipelotrichales; Erysipelotrichaceae; unclassified Erysipelotrichaceae
Eubacterium eligens	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Eubacteriaceae; Eubacterium
Eubacterium hallii	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Eubacteriaceae; Eubacterium
Eubacterium rectale ATCC 33656	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Eubacteriaceae; Eubacterium
Eubacterium ventriosum	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Eubacteriaceae; Eubacterium
Faecalibacterium prausnitzii M21 2	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Ruminococcaceae; Faecalibacterium
Fusobacterium sp 4 1 13	NCBI	cellular organisms; Bacteria; Fusobacteria; Fusobacteria (class); Fusobacteriales; Fusobacteriaceae; Fusobacterium
Fusobacterium varium ATCC27725	Broad	cellular organisms; Bacteria; Fusobacteria; Fusobacteria (class); Fusobacteriales; Fusobacteriaceae; Fusobacterium
Helicobacter pylori HPAG1	NCBI	cellular organisms; Bacteria; Proteobacteria; delta/epsilon subdivisions; Epsilonproteobacteria; Campylobacteriales; Helicobacteraceae; Helicobacter
Holdemania filiformis	WashU	cellular organisms; Bacteria; Firmicutes; Erysipelotrichi; Erysipelotrichales; Erysipelotrichaceae; Holdemania
Lactobacillus casei ATCC 334	NCBI	cellular organisms; Bacteria; Firmicutes; Bacilli; Lactobacillales; Lactobacillaceae; Lactobacillus
Lactobacillus delbrueckii subsp bulgaricus ATCC 11842	NCBI	cellular organisms; Bacteria; Firmicutes; Bacilli; Lactobacillales; Lactobacillaceae; Lactobacillus
Lactococcus lactis subsp cremoris MG1363	NCBI	cellular organisms; Bacteria; Firmicutes; Bacilli; Lactobacillales; Streptococcaceae; Lactococcus
Lactococcus lactis subsp cremoris SK11	NCBI	cellular organisms; Bacteria; Firmicutes; Bacilli; Lactobacillales; Streptococcaceae; Lactococcus
Lactococcus lactis subsp lactis I1403	NCBI	cellular organisms; Bacteria; Firmicutes; Bacilli; Lactobacillales; Streptococcaceae; Lactococcus
Clostridium innocuum strain SB23	CGS	cellular organisms; Bacteria; Firmicutes; Erysipelotrichi; Erysipelotrichales; Erysipelotrichaceae; unclassified Erysipelotrichaceae
Methanobrevibacter smithii ATCC 35061	NCBI	cellular organisms; Archaea; Euryarchaeota; Methanobacteria; Methanobacteriales; Methanobacteriaceae; Methanobrevibacter
Methanobrevibacter smithii DSM2374	WashU	cellular organisms; Archaea; Euryarchaeota; Methanobacteria; Methanobacteriales; Methanobacteriaceae; Methanobrevibacter
Methanobrevibacter smithii DSM2375	WashU	cellular organisms; Archaea; Euryarchaeota; Methanobacteria; Methanobacteriales; Methanobacteriaceae; Methanobrevibacter
Methanospaera stadtmanae DSM 3091	NCBI	cellular organisms; Archaea; Euryarchaeota; Methanobacteria; Methanobacteriales; Methanobacteriaceae; Methanospaera
Mitsuokella multacidica	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Veillonellaceae; Mitsuokella
Parabacteroides distasonis ATCC 8503	NCBI	cellular organisms; Bacteria; Bacteroidetes; Chlorobi group; Bacteroides; Bacteroidales; Porphyromonadaceae; Parabacteroides
Parabacteroides johnsonii	WashU	cellular organisms; Bacteria; Bacteroidetes; Chlorobi group; Bacteroides; Bacteroidales; Porphyromonadaceae; Parabacteroides
Parabacteroides merdae	WashU	cellular organisms; Bacteria; Bacteroidetes; Chlorobi group; Bacteroides; Bacteroidales; Porphyromonadaceae; Parabacteroides
Peptostreptococcus micros	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Clostridiales incertae sedis; Clostridiales Family XI. Incertae Sedis; Parimonas
Prevotella copri	WashU	cellular organisms; Bacteria; Bacteroidetes; Chlorobi group; Bacteroides; Bacteroidales; Prevotellaceae; Prevotella
Proteus penneri	WashU	cellular organisms; Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales; Enterobacteriaceae; Proteus
Providencia alcalifaciens	WashU	cellular organisms; Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales; Enterobacteriaceae; Providencia
Providencia rettgeri	WashU	cellular organisms; Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales; Enterobacteriaceae; Providencia
Providencia rustigianii	WashU	cellular organisms; Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales; Enterobacteriaceae; Providencia
Providencia stuartii	WashU	cellular organisms; Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales; Enterobacteriaceae; Providencia
Roseburia intestinalis L1	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Lachnospiraceae; Roseburia
Ruminococcus bromii_263	Sanger	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Ruminococcaceae; Ruminococcus
Ruminococcus gnavus	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Ruminococcaceae; Ruminococcus
Ruminococcus hydrogenotrophicus	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; unclassified Clostridiales; Blautia
Ruminococcus lactaris	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Ruminococcaceae; Ruminococcus
Ruminococcus obicum	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Ruminococcaceae; Ruminococcus
Ruminococcus torques	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Ruminococcaceae; Ruminococcus
Shigella sp D9	NCBI	cellular organisms; Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales; Enterobacteriaceae; Shigella
Streptococcus infantarius	WashU	cellular organisms; Bacteria; Firmicutes; Bacilli; Lactobacillales; Streptococcaceae; Streptococcus
Streptococcus thermophilus CNRZ1066	NCBI	cellular organisms; Bacteria; Firmicutes; Bacilli; Lactobacillales; Streptococcaceae; Streptococcus

<i>Streptococcus thermophilus</i> LMD-9	NCBI	cellular organisms; Bacteria; Firmicutes; Bacilli; Lactobacillales; Streptococcaceae; <i>Streptococcus</i>
<i>Streptococcus thermophilus</i> LMG 18311	NCBI	cellular organisms; Bacteria; Firmicutes; Bacilli; Lactobacillales; Streptococcaceae; <i>Streptococcus</i>
<i>Subdoligranulum variable</i>	WashU	cellular organisms; Bacteria; Firmicutes; Clostridia; Clostridiales; Ruminococcaceae; <i>Subdoligranulum</i>
<i>Victivallis vadensis</i> ATCC BAA-548	NCBI	cellular organisms; Bacteria; Chlamydiae/Verrucomicrobia group; Lentisphaerae; <i>Victivallales</i> ; <i>Victivallaceae</i> ; <i>Victivallis</i>